

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to
Implement Dairy Biomethane Pilot
Projects to Demonstrate Interconnection
to the Common Carrier Pipeline System
In Compliance with Senate Bill 1383.

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PUBLIC UTILITIES COMMISSION
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**ORDER INSTITUTING RULEMAKING
TO IMPLEMENT DAIRY BIOMETHANE PILOT PROJECTS
TO DEMONSTRATE INTERCONNECTION TO THE COMMON CARRIER
PIPELINE SYSTEM IN COMPLIANCE WITH SENATE BILL 1383**

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TO IMPLEMENT DAIRY BIOMETHANE PILOT PROJECTS TO
DEMONSTRATE INTERCONNECTION TO THE COMMON CARRIER
PIPELINE SYSTEM IN COMPLIANCE WITH SENATE BILL 1383**

Summary

We open this rulemaking to implement the provision of Senate Bill 1383 (Lara; Stats. 2016, Ch. 395) requiring us to direct gas corporations to implement not less than five dairy biomethane pilot projects to demonstrate interconnection to the common carrier pipeline system and allow for rate recovery of reasonable infrastructure costs. Senate Bill 1383 also directs the California Public Utilities Commission (CPUC) to consult with the California Air Resources Board and California Department of Food and Agriculture. Those agencies have begun their work. They welcome stakeholder comments, suggestions, and information. We encourage stakeholders to participate in the processes available at those agencies. (See Dairy and Livestock Greenhouse Gas Reduction Working Group at: <https://www.arb.ca.gov/cc/shortlived/shortlived.htm>)

In order to implement this legislation, the ultimate CPUC decision will need to establish an implementation framework that covers four general categories: pilot selection (selection criteria and procurement approach); definition of infrastructure; cost recovery framework (how will reasonableness of the infrastructure be assessed, and cost cap/cost limitations); and data gathering (to support evaluation of the pilots). Because this is a fairly narrow scope of work, this rulemaking proposes an implementation framework and seeks comments on the proposed framework.

Interested persons may comment on the proposed framework consistent with the schedule and procedure described herein.

1. Jurisdiction

California Public Utilities Commission (CPUC) jurisdiction over natural gas corporations, public health, and public safety is provided by, but not limited to, Health and Safety (H&S) Code §§ 25420, 25421, 39730.7, 39730.8; Public Utilities (Pub. Util.) Code §§ 216, 222, 228, 399.11 through 399.31, 451, 761 784, 950 through 969; and General Orders (GO) 58-B and 112-E.

In particular, public utilities have a responsibility to furnish and maintain service and facilities as necessary to promote public health and safety:

Every public utility shall furnish and maintain such adequate, efficient, just, and reasonable service, instrumentalities, equipment, and facilities...as are necessary to promote the safety, health, comfort, and convenience of its patrons, employees, and the public. (Pub. Util. Code § 451.)

The CPUC also has broad responsibility and authority to protect public health and safety:

The commission may supervise and regulate every public utility in the State and may do all things, whether specifically designated in this part or in addition thereto, which are necessary and convenient in the exercise of such power and jurisdiction. (Pub. Util. Code § 701.)

2. Background

California has long been interested in the responsible use of organic waste to promote environmental and economic goals including but not limited to clean air, effective waste management, job development, energy independence, and resource diversity. For example, leading the nation in 1979, the CPUC directed utilities to purchase electricity from alternative private generating resources, including small power producers using biofuels. (Decision (D.) 91109.)

In July 2006, the Bioenergy Interagency Working Group published its first Bioenergy Action Plan, establishing broad objectives for bioenergy development

and use, along with both individual and multi-agency responsibilities. (Governor's Executive Order S-06-06; California Energy Commission (CEC) Publication No. CEC-600-2006-010.) In August 2011, the Bioenergy Action Plan was updated to formalize additional state actions in support of multiple goals, including Governor Brown's Clean Energy Jobs Plan to increase renewable energy generation, reduce waste, and create jobs. (CEC-300-2011-001-CTF.) In August 2012, the Bioenergy Interagency Working Group updated the Plan's strategies and objectives based on current information.¹

In 2013 the CPUC opened Rulemaking (R.) 13-02-008 to adopt biomethane standards and requirements, pipeline open access rules, and related enforcement provisions following the adoption of Assembly Bill (AB) 1900 (Gatto; Stats. 2012, Ch. 602). AB 1900 involves significant work by, and consultation between and among, several state agencies and remains open. The agencies include the Office of Environmental Health Hazard Assessment (OEHHA), California Air Resources Board (ARB), Department of Resources Recycling and Recovery (CalRecycle), Department of Toxic Substances Control (DTSC), CEC, California Environmental Protection Agency (CalEPA), and the CPUC.

For the purposes of today's Rulemaking, we briefly describe the actions the CPUC must take pursuant to Senate Bill (SB) 1383.

2.1. Health and Safety Code § 39730.7(d)(2)

Health and Safety Code (H&S) § 39730.7(d)(2) requires the CPUC, in consultation with ARB and California Department of Food and Agriculture (CDFA), to direct gas corporations to implement not less than five dairy

¹ O'Neill, Garry. 2012. **2012 Bioenergy Action Plan**. CEC, Efficiency and Renewables Division, Publication number: CEC-300-2012-XXX-XXX.

biomethane pilot projects to demonstrate interconnection to the common carrier pipeline system. Gas corporations may recover the reasonable costs of pipeline infrastructure developed pursuant to the pilots.

2.2. Health and Safety Code § 39730.7(d)(1)(A)

H&S § 39730.7(d)(1)(A) requires ARB, in consultation with the CPUC and CEC, to establish energy infrastructure development and procurement policies to encourage dairy biomethane projects to reduce methane emissions from livestock and dairy operations by at least 40 percent below the dairy and livestock sectors' 2013 level by the year 2030. To implement this provision, the CPUC will serve a consultative role to ARB and a CPUC proceeding is not needed.

2.3. Health and Safety Code § 39730.8(b)

H&S § 39730.8(b) requires the CEC, in consultation with ARB and the CPUC, to develop recommendations surrounding development and use of renewable gas, including biomethane and biogas, as part of its 2017 Integrated Energy Policy Report (IEPR). To implement this provision, the CPUC will serve a consultative role to the CEC and a CPUC proceeding is not needed.

2.4. Health and Safety Code § 39730.8(d)

Based on the CEC recommendations regarding renewable gas in the 2017 IEPR, H&S § 39730.8(d) requires the CPUC, in consultation with the CEC and ARB, to consider policies to support the development and use of renewable gas that reduce short-lived climate pollutants in the state. We anticipate that we will open a future rulemaking at the time the CEC 2017 IEPR recommendations are available. In the event that this rulemaking remains open at the time the CEC 2017 IEPR recommendations are available, we will consider establishing a second phase of this rulemaking to consider these policies.

3. Collaborative Process with Other State Agencies

The CPUC and its staff have successfully worked in a collaborative relationship with other state agencies and their staffs in several proceedings. This has promoted good communication among agencies sharing responsibilities for several matters. We will continue that collaborative relationship in this proceeding. As it wishes, each agency may, but is not required to, become a party in our proceeding.²

As provided by statute, we will consult with ARB and California Department of Food and Agriculture (CDFA) as we establish the framework for implementing dairy biomethane pilots. (H&S Code § 39730.7(d)(2).) We will also consult with the CEC. ARB, CDFA, and CEC need not be parties in the proceeding to consult with and provide input to the CPUC in a variety of ways.

4. Outreach to Affected Public

The CPUC performed outreach to sister agencies ARB, CDFA, and the CEC on the development of the selection criteria for the dairy biomethane pilot project since SB 1383 became law. Staff reviewed the efforts of both ARB and CDFA in this sector, and requested guidance from agency partners on the pilot project selection criteria. In March 2017, Staff received examples of solicitation documents from CDFA and CEC, and guidance on pilot selection criteria from ARB.

On March 3, 2017, Staff solicited input from stakeholders via email on pilot selection criteria, the definition of pipeline infrastructure, cost recovery framework, and project evaluation. Input was received from the Agricultural

² We encourage state agencies to be on the service list for informational purposes even if they do not become parties.

Energy Consumers Association (AECA), Bioenergy Association of California (BAC), Dairy Cares, Pacific Gas and Electric Company (PG&E), Quantitative Biosciences (QBSi), Coalition for Renewable Natural Gas (RNG Coalition), and Southern California Gas Company (SoCalGas).

The proposed framework attached as Appendix A and B reflect our integration of the various perspectives we heard through this outreach effort.

The CPUC intends to conduct additional outreach after this proceeding is opened, especially to the parties to R.15-03-010, our proceeding to identify opportunities to increase access to affordable energy in disadvantaged communities in the San Joaquin Valley and to participants in the joint agency Dairy and Livestock Working Group established pursuant to SB 1383.

5. Procedure

We are issuing proposed rules for selection, definition of infrastructure, cost recovery, and evaluation of dairy biomethane pilots based on the advance work of our staff in consultation with our agency partners and outreach efforts. This rulemaking solicits public review and comment on the proposed rules as described below.

PG&E, SoCalGas, San Diego Gas & Electric Company (SDG&E), and Southwest Gas Corporation are Respondents to this proceeding. All Respondents must, and any interested persons may, comment on the proposed rules and other topics consistent with the schedule established in Section 7. Entities that file comments will be granted party status.

In the interest of broad notice, we serve this rulemaking on all gas utilities regulated by the CPUC³ - including the named Respondents, all gas storage facilities regulated by the CPUC, and all persons and entities on the official service lists for R.13-02-008, R.14-03-003, R.15-01-008, R.15-03-010, R.16-02-007, and R.16-07-006, and Applications (A.)12-04-024, A.12-12-024, A.14-12-017, and A.15-07-017. In addition, we serve the state agencies named in SB 1383, ARB, CEC, and CDFA, and the organizations listed in Appendix C.

Service of this rulemaking does not confer party status on a person or organization that has received such service, except as otherwise noted (Respondents are automatically made parties; entities that file comments on the rulemaking will be conferred party status). To be placed on the service list, persons or entities should follow the instructions in Section 8, below.

6. Preliminary Scoping Memo

H&S § 39730.7(d)(2) requires the CPUC, in consultation with ARB and CDFA, to direct gas corporations to implement not less than five dairy biomethane pilot projects to demonstrate interconnection to the common carrier pipeline system. Gas corporations may recover the reasonable costs of pipeline infrastructure developed pursuant to the pilots.

In order to implement this legislation, the ultimate CPUC decision will need to establish an implementation framework that covers four general categories: pilot selection (selection criteria and procurement approach); definition of infrastructure; cost recovery framework (how will reasonableness of the infrastructure be assessed and cost cap/cost limitations); and data gathering

³ The names and addresses of all CPUC-regulated gas utilities are maintained by the Energy Division.

(to support evaluation of the pilots). Because this is a fairly narrow scope of work, this Order proposes the necessary implementation framework and seeks comments on the proposed framework.

With this scope in mind, we preliminarily determine the issues, category, need for hearing, and other elements of the preliminary scoping memo.

(Rule 7.1(d).)

6.1. Issues

We preliminarily identify the following issues:

1. Should the CPUC adopt the definition of Pipeline Infrastructure set forth in Appendix A? If not, how should it be modified?
2. Should the CPUC adopt the implementation plan set forth in Appendix A? If not, how should it be modified?
3. Should the CPUC adopt the cost recovery framework set forth in Appendix A? If not, how should it be modified?
4. Should the CPUC adopt the pilot selection criteria framework set forth in Appendix B? If not, how should it be modified?
5. Should the CPUC adopt the data gathering parameters set forth in Attachment B to Appendix B? If not, how should it be modified? and
6. Does the proposed implementation framework support the safe provision of natural gas services? If not, how should it be modified?

Appendix A includes both a proposed framework and discussion of how we reached the proposed framework. Appendix B sets forth pilot selection criteria framework for review. In commenting on these issues, parties should provide specific language changes to the proposed framework and provide their supporting rationale. All comments that contain factual assertions must be

verified. Unverified factual assertions will be given only the weight of argument. (Rule 6.2; Pub. Util. Code § 1701.5(a).)

6.2. Category and *Ex Parte* Communications

We preliminarily determine the category as quasi-legislative. We make this determination given that our primary focus is to adopt a framework for selecting dairy biomethane pilot projects proposed by gas corporations. This determination closely matches our definition of quasi-legislative proceedings:

‘Quasi-legislative’ proceedings are proceedings that establish policy or rules (including generic ratemaking policy or rules) affecting a class of regulated entities, including those proceedings in which the Commission investigates rates or practices for an entire regulated industry or class of entities within the industry. (Rule 1.3(d).)

While the adopted results may affect gas utility costs and individual company rates, this is not a proceeding in which we specifically set rates, or establish a mechanism that in turn sets rates, as stated in our definition of a ratesetting proceeding. (Rule 1.3(e).) Therefore, we preliminarily determine the category is quasi-legislative.

This preliminary determination is not appealable, but shall be confirmed or changed by assigned Commissioner’s ruling after consideration of any comments received. The assigned Commissioner’s determination as to category is subject to appeal. (Rules 7.3 and 7.6.)

Communications with decision makers and advisors in this rulemaking are governed by Pub. Util. Code §§ 1701.1 and 1701.3 and Article 8 of the Rules of

Practice and Procedure. (Rule 8.1, *et seq.*)⁴ *Ex parte* communications are allowed without restriction or reporting requirement in a quasi-legislative proceeding. (Rule 8.3(a).) No *ex parte* restrictions or reporting requirements apply in this proceeding.

6.3. Need for Hearing

We anticipate many of these issues can be addressed by filed comments or in public meetings or workshops. Therefore, we preliminarily determine that no hearings will be needed. (Rule 7.1(d).) The assigned Commissioner's Scoping Memo and Ruling, after considering the comments and recommendations of parties, will make a final determination of the need for hearing. (Rule 7.3(a).)

7. Initial Schedule

The following schedule is subject to change by the assigned Commissioner or ALJ after review of the comments. It may be supplemented or changed to promote efficient and equitable development of the record. It is anticipated that portions of this proceeding will be resolved by December 31, 2017, with the total proceeding resolved within 18 months of the date the Rulemaking is opened. (*See* Pub. Util. Code § 1701.5.)

⁴ Interested persons are advised that, to the extent that the requirements of Rule 8.1 *et seq.* deviate from Pub. Util. Code §§ 1701.1 and 1701.3, as amended by SB 215, effective January 1, 2017, the statutory provisions govern.

LINE NO.	ITEM	DATE
1	Public Meeting: Energy Division Presentation on Implementation Framework and Public Comment	Date TBD (target week of 7/10) Location TBD
2	Comments on Proposed Framework (attached as Appendices A and B); objections to the preliminary scoping memo regarding category, need for hearing, issues to be considered, or schedule	45 days from date OIR issued (~8/4)
3	Reply Comments on OIR	14 days from filing of comments (~8/18)
4	Final Scoping Memo	75 days from date OIR issued (~9/5)
5	Proposed Decision mailed for comment	TBD, target October 23, 2017
6	Final Commission Decision issued	TBD, target November 30, 2017

The CPUC will hold a public meeting prior to the filing of comments to explain the proposed framework and hear input from the public and prospective parties.

Comments on the Proposed Framework may be filed and served within 45 days of the date this Rulemaking is issued. Comments shall also state any objections to the preliminary scoping memo regarding category, need for hearing, issues to be considered, or schedule. (Rule 6.2.) Reply comments may be filed and served, and shall be filed and served within 14 days of the filing date of comments. To the extent known at the time, comments and reply comments should include the party's specific, exact wording for proposed rules, along with specifics for the schedule and other items. Any comments recommending changes to the proposed schedule must be consistent with the proposed category, including a deadline for adoption of the framework for pilot selection

by December 31, 2017, and resolving the proceeding within 18 months of the date the Rulemaking is adopted.

The assigned Commissioner and ALJ may consider directing staff to hold a workshop shortly after reply comments are filed. The workshop would permit parties to present and discuss offered changes to the proposed framework. This may help surface issues that should be considered early in the process. Parties are encouraged to address in their comments whether they would consider workshops to be useful.

8. Service List, Filing and Service of Documents, Subscription Service

8.1. Addition to the Official Service List

Additions to the official service list are governed by Rule 1.9(f).

Persons who file responsive comments to the Rulemaking will become parties to this proceeding and will be added to the “Parties” category of the official service list upon such filing. *In order to assure service of comments and other documents and correspondence in advance of obtaining party status, persons should promptly request addition to the “Information Only” category as described below. They will be removed from that category upon obtaining party status.*

Interested entities should request to be added to the “Information Only” category of the official service list promptly to ensure timely service of comments and other documents and correspondence in the proceeding. (See Rule 1.9(f).) The request must be sent to the Process Office by e-mail (processoffice@cpuc.ca.gov) or letter (Process Office, California Public Utilities Commission, 505 Van Ness Avenue, San Francisco, California 94102). Please include the Docket number of this Rulemaking in the request.

8.2. Filing and Service

Filing and service of documents in this proceeding are governed by the rules contained in article 1 of the Commission's Rules of Practice and Procedure. (See particularly Rules 1.5 through 1.10 and 1.13). If you have questions about the Commission's filing and service procedures, contact the Docket Office (Docket_Office@cpuc.ca.gov) or check the Practitioner's Page on our website at www.cpus.ca.gov.

8.3. Subscription Service

Persons may monitor the proceeding by subscribing to receive electronic copies of documents in this proceeding that are published on the Commission's website. There is no need to be on the official service list in order to use the subscription service. Instructions for enrolling in the subscription service are available on the Commission's website at <http://subscribecpus.cpus.ca.gov/>.

9. Public Advisor

Any person or entity interested in participating in this Rulemaking who is unfamiliar with the Commission's procedures should contact the Commission's Public Advisor in San Francisco at (415) 703-2074 or (866) 849-8390 or e-mail public.advisor@cpuc.ca.gov. The TTY number is (866) 836-7825.

10. Intervenor Compensation

Any party that expects to claim intervenor compensation for its participation in this Rulemaking must file its notice of intent to claim intervenor compensation within 30 days of the filing of reply comments, except that notice may be filed within 30 days of a prehearing conference in the event that one is held. (See Rule 17.1(a)(2).) Intervenor compensation rules are governed by §§ 1801 et seq. of the Public Utilities Code. Parties new to participating in Commission proceedings may contact the Public Advisor's office for assistance. Contact information is set forth in Section 9, above.

IT IS ORDERED that:

1. This Order Instituting Rulemaking is adopted pursuant to Health and Safety Code Sections 25420 and 25421; Public Utilities Code Sections 216, 222, 228, 451, 701, 761, 784, 950 through 969; new Public Utilities Code Section 784; and Rule 6.1 of the Commission's Rules of Practice and Procedure.
2. The preliminary categorization is quasi-legislative.
3. The preliminary determination is that a hearing is not needed.
4. The preliminary scope of issues is as stated in Section 6 of this order.
5. Unless changed by the assigned Commissioner or Administrative Law Judge, the schedule stated in Section 7 of this order is adopted. It is the Commission's intent to resolve some issues by December 31, 2017, and to resolve the full proceeding within 18 months of the date the rulemaking is adopted.
6. Pacific Gas and Electric Company, Southern California Gas Company, San Diego Gas & Electric Company, and Southwest Gas Corporation are Respondents to this Order Instituting Rulemaking.
7. Pacific Gas and Electric Company and Southern California Gas Company shall, and any other persons may, file comments responding to this Order Instituting Rulemaking by 45 days from the date this rulemaking is issued.
8. The Executive Director will cause this Order Instituting Rulemaking to be served on all regulated gas utilities (including the named Respondents and all regulated gas storage facilities), and on the service lists for the following Commission proceedings: Rulemaking (R.) 13-02-008, R.14-03-003, R.15-01-008, R.15-03-010, R.16-02-007, and R.16-07-006, and Applications (A.)12-04-024, A.12-12-024, A.14-12-017, and A.15-07-017. In addition, the Executive Director will cause this Order Instituting Rulemaking to be served on the entities listed in Appendix C.

9. *Ex parte* communications in this proceeding are permitted without restriction or reporting requirements.

10. Any party that expects to claim intervenor compensation for its participation in this Rulemaking must file its notice of intent to claim intervenor compensation within 30 days of the filing of reply comments, except that notice may be filed within 30 days of a prehearing conference in the event that one is held. (*See* Rule 17.1(a)(2).)

This order is effective today.

Dated June 15, 2017, at Sacramento, California.

MICHAEL PICKER

President

CARLA J. PETERMAN

LIANE M. RANDOLPH

MARTHA GUZMAN ACEVES

CLIFFORD RECHTSCHAFFEN

Commissioners

APPENDIX A PROPOSED FRAMEWORK AND ANALYSIS

1. Summary

For purposes of Senate Bill 1383 (California Health and Safety Code Section 39730.7(d)(2)) dairy biomethane pilot projects (Dairy Pilots), the term Pipeline Infrastructure should include biogas collection lines, interconnection facilities at the point of receipt, and the interconnection pipeline extension to the existing pipeline network. All other costs (e.g., digester and biogas conditioning facility costs), are the responsibility of biomethane producers and are not considered Pipeline Infrastructure costs.

Utilities will record Pipeline Infrastructure costs in a memorandum account. This allows flexibility to address unforeseen costs from sources such as the California Environmental Quality Act (CEQA) permitting process. The forecasted costs contained in the bids of selected pilots will establish the authorized level of per se reasonable costs, subject only to the utility's prudent administration of the Pipeline Infrastructure projects. Expenditures above the authorized amount are subject to reasonableness review. Any savings below the authorized amount will be credited to ratepayers and utilities shareholders 50/50. This offers an incentive to utilities to manage their costs in an effective way while minimizing the cost of the Dairy Pilots to ratepayers. The utilities may seek recovery of the amounts recorded in the memorandum accounts in their General Rate Case (GRC).

The statute allows costs of Pipeline Infrastructure to be recovered in the rates of utilities, therefore utilities may include such Pipeline Infrastructure costs as part of their transportation rates. Biomethane producers bear the costs of digesters and biogas conditioning facilities under this framework; therefore the

revenues from the sales of the gas commodity and credits are assigned to the biomethane producers to offset their costs. Revenue generated from credits, such as Low Carbon Fuel Standard and Renewable Fuel Standard credits, should be negotiated between the seller and the buyer of the biomethane gas via contract.

A Selection Committee comprised of the California Public Utilities Commission (CPUC) as the lead agency, in consultation with the California Air Resources Board (ARB) and California Department of Food and Agriculture (CDFA), will determine which biomethane industry proposals are accepted for inclusion in the Dairy Pilots, using the following scoring criteria:

Scoring Criteria	Maximum Points
Dairy Waste-to-Biomethane Business Model • Dairy Operation • Technology Plan • Marketing Plan • Scalability	20
Financial Plan/Soundness	20
Greenhouse Gas Reduction	20
Environmental Benefits	15
Disadvantaged Communities	15
Project Readiness and Implementation	10

Proposed Dairy Pilot projects with the five highest scores will be chosen for participation. In the event of multiple projects with identical scores as the fifth-highest, the CPUC retains the discretion to choose one or more of the projects. The pilot projects selected are required to participate in a dairy biomethane evaluation study and to report specified data to the Selection Committee and the California Energy Commission (CEC).

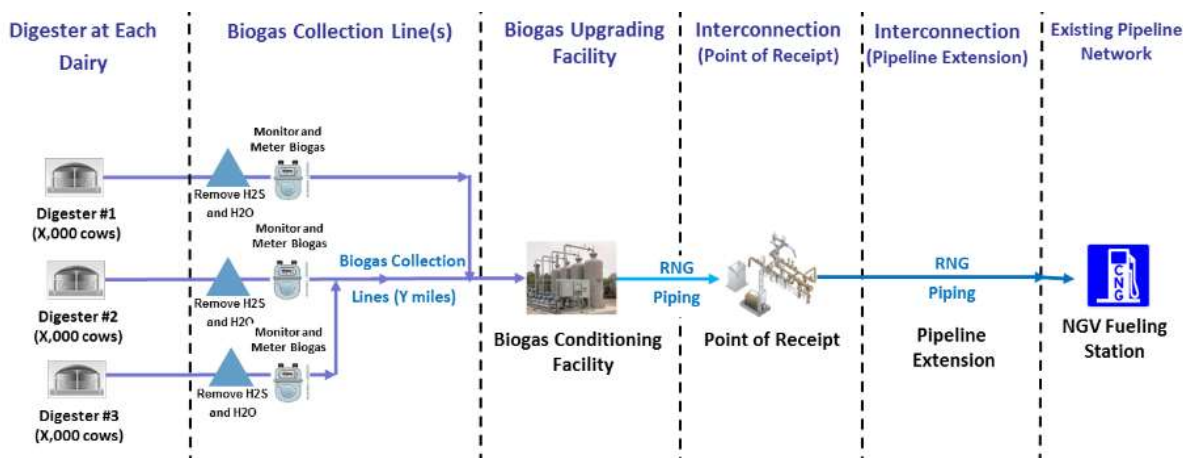
2. Implementation Plan

- By January 1, 2018, the CPUC will direct the utilities to (a) issue a solicitation for dairy biomethane pilots within 30 days utilizing the selection criteria framework set forth in Appendix B, and (b) open a memorandum account to record eligible pipeline infrastructure costs associated with the dairy biomethane pilots.
- Either Pacific Gas and Electric Company (PG&E) or Southern California Gas Company (SoCalGas) will take the lead to issue a joint solicitation. The companies may decide on the lead; alternatively the CPUC will appoint one of the companies as the lead.
- Proposed Dairy Pilot projects will be submitted to CPUC electronically to renewablegas@cpuc.ca.gov. Project benefits will be evaluated and verified by the Selection Committee and/or independent auditors. Pipeline Infrastructure costs will be evaluated and verified by utilities in their respective territories. Estimated cost documentation provided by the utility shall be itemized, such that a developer and the CPUC can understand the exact breakdown of labor, Operations and Maintenance, and capital expenditures for each job activity and each installed piece of equipment. Once the proposals are verified and confirmed, the Selection Committee will review and select at least five pilot projects based on the Selection Criteria Framework set forth in Appendix B. If there is no consensus within the Selection Committee, the CPUC will make the final selection.
- The CPUC will inform the utilities of the awarded pilot projects, and within 10 days, the utilities will each file a Tier 2 Advice Letter to implement a memorandum account to record the costs associated with the selected pilots.

- The Pipeline Infrastructure costs from the winning Dairy Pilot bids will establish a per se reasonable level (subject to the utility's prudent administration of the project), with costs in excess of this level subject to reasonableness review.
- The utilities will manage and implement the Pipeline Infrastructure portion of the pilot projects in their respective service territories.
- Utilities must work with the awarded applicants to establish a construction plan for necessary Pipeline Infrastructure. Utilities must pay for and construct the portion of a pilot project that is defined as Pipeline Infrastructure. Any costs associated with Pipeline Infrastructure will be recorded in the memorandum account. Dairy Pilot applicants are responsible for all other costs of the pilot project, including digesters and conditioning facilities.

3. Definition of Pipeline Infrastructure

SoCalGas and the Coalition for Renewable Natural Gas (RNG Coalition) provided a diagram to illustrate several components of a typical dairy pilot project that is connected to a gas pipeline system. SoCalGas provided terminology for each component. Some of the terminology outlined by SoCalGas is clarified in our descriptions below.



Source: SoCalGas - Dairy pilot project infrastructure requirements.

1. Digesters at each dairy convert manure to biogas. The digester breaks down the manure waste at landfills, lagoons, or enclosed vessels. The unprocessed mixture of methane and carbon dioxide is referred to as biogas.
2. Biogas collection lines (also known as gathering lines) transport dairy biogas from each dairy digester to a central biogas conditioning facility.
3. The biogas conditioning facility is where biogas is upgraded to “pipeline quality,” meaning carbon dioxide and other trace components are removed. Once conditioned, this gas is referred to as “biomethane,” “renewable gas,” or “renewable natural gas.” Biomethane must meet the standards adopted pursuant to subdivisions (c) and (d) of Health and Safety Code Section 25421 for injection into a common carrier pipeline.
4. The “point of receipt” is the location at which a utility receives gas into its transmission system and assesses all gas, including biomethane, to ensure it meets pipeline quality specifications. If gas does not meet pipeline quality specifications, then the utility will not allow it to enter the pipeline system by shutting the valve at the point of receipt.

5. A pipeline extension (or interconnection) provides a tie-in from the point of receipt to the existing pipeline network.
6. Natural Gas Fueling Station(s) could be located anywhere on the pipeline network.

3.1. Stakeholder Input

Stakeholders provided input on the term Pipeline Infrastructure. ARB, SoCalGas, Agricultural Energy Consumers Association (AECA), and Dairy Cares define pipeline infrastructure to include four components: biogas collection lines, biogas conditioning facility, point of receipt, and pipeline extension. SoCalGas claims these components are infrastructure necessary to ensure effective and safe interconnection to the common carrier pipeline system. PG&E, Bioenergy Association of California (BAC), Quantitative Biosciences (QBSci), and RNG Coalition limit pipeline infrastructure to two components: point of receipt and pipeline extension. PG&E also include valves, meters and devices as part of the infrastructure. PG&E claims the collection lines and the conditioning facilities should be owned and operated by the project developers.

3.2. Proposed Definition

For purposes of the Dairy Pilots, the term Pipeline Infrastructure should include three components related to the pipeline: biogas collection lines, the point of receipt, and the pipeline extension. The biogas collection lines and pipeline extension are used for transporting gas to the utility transmission system and constitute the 'pipeline infrastructure' as stated in SB 1383. The point of receipt, where utilities measure and monitor the biomethane gas to ensure it meets pipeline gas quality specifications prior to entering the utility pipeline, serves as the critical infrastructure to ensure safe interconnection to a pipeline system. Equipment such as valves, meters, and protection devices are part of the

costs at the point of receipt. All other components, such as digesters and biogas conditioning facilities, should not be considered Pipeline Infrastructure. The costs of gathering, digesters, gas conversion to pipeline quality specifications, transportation from the dairy to a conversion facility, and transportation from the conversion facility to the pipeline, and pipeline interconnection costs have been borne by California natural gas producers as part of the commodity cost of gas since the late 1980's. (See Decision (D.) 89-12-016.) Although requiring ratepayers to fund the costs of digesters and biogas conditioning facilities would reduce the costs to biomethane project developers, it would place the utilities into the position of owning natural gas production facilities, which is not permitted by federal law under the Natural Gas Wellhead Decontrol Act of 1989 and the Natural Gas Policy Act of 1978 which fully deregulated the gas commodity at the wellhead.

4. Cost Recovery Framework

Once the Pipeline Infrastructure costs have been identified, the next question is who pays for what portion of the costs and how should those costs be recovered?

4.1. Stakeholder Input

AECA, Dairy Cares, and PG&E suggest Pipeline Infrastructure costs should be rate-based by the utilities and collected in rates paid by all ratepayers. PG&E suggests unused assets should be written off if the projects are not successful. RNG Coalition says the cost recovery framework should cover all costs of the projects. ARB suggests gas corporations may recover the cost of the pipeline injections, including operation and maintenance costs, for at least three years.

BAC urges the pipeline infrastructure cost, including biogas conditioning facility and upstream requirements for pipeline biogas interconnection, to be rate-based if the pilot projects include biogas from different feedstock sectors (e.g. solid diverted from landfills and wastewater treatment facilities, agricultural and forest waste). BAC claims SB 1383, AB 1900 and other statutes support the increase of pipeline biogas from all sectors, not just dairy. If the pilot projects are limited to dairy biogas, BAC urges only the interconnection pipeline portion (excluding biogas conditioning facility) to be rate-based to avoid distortion of the biogas market. BAC claims a pilot program limited to dairy biogas could stifle other sectors to compete in the biogas market.

SoCalGas suggests the adoption of a balancing account to record operations and maintenance costs and capital-related project costs (depreciation, return and taxes); and revenues that may be generated from the usage of the pipeline via transportation and conditioning fees. The disposition of the balance recorded in this new regulatory account would be amortized in rates in connection with the utilities' annual regulatory account balance update advice letter filing for rates, effective January 1 of the following year.

QBSci recommends the reasonableness of Pipeline Infrastructure costs should be evaluated via comparisons to other states that allow biomethane refinement operations to connect to natural gas pipelines. A statistical analysis should be performed on infrastructure costs of other states to determine median and mean values of pipeline interconnection project. BAC recommends that the CPUC adopt a cost-effectiveness requirement that is based on the costs of interconnection per ton of greenhouse gas reduction. BAC points out that there is no way to assess reasonableness of the pilot project given that there are no existing dairy biogas-to-pipeline projects in California.

Both PG&E and SoCalGas claim that applying cost factors to assess reasonableness will likely be ineffective because each pilot project will be unique in size, proximity to pipeline, environmental factors, complexity, and level of innovation. SoCalGas points out the reasonableness of the infrastructure costs should be primarily addressed by utilizing a solicitation process for project selection. This will promote the correct balance between selecting the most cost-effective projects and addressing the intent of Senate Bill 1383 to demonstrate a successful and expandable framework to address ARB's Short-Lived Climate Pollutant (SLCP) goals.

AECA, BAC, Dairy Cares, RNG Coalition, PG&E oppose a cost cap. In general, PG&E, Dairy Cares, and AECA claim capping the cost would thwart innovation, distort information regarding the costs and benefits of the Dairy Pilots, and limit project development and the ability for private developers to obtain financing.

SoCalGas claims some cost caps may be appropriate but it should not be established until expected costs are clearly understood. SoCalGas also claims that it may be prudent to allow for some flexibility for unforeseen costs given the unique circumstances of each pilot project.

QBSci suggests cost caps and that cost recovery limits should be designed to reflect the interconnection costs compared to other states, and that adjustment should be made to account for inflation and regulatory permitting cost.

AECA advises that the developers and participating dairies must retain exclusive rights to the biogas and any credits associated with the projects. SoCalGas points out the current market conditions may present an opportunity for these pilot projects to generate revenues to offset portions of ratepayer costs. For instance, generating transportation fuel from dairy manure may qualify for

Low Carbon Fuel Standard (LCFS) credits and Renewable Fuel Standard (RFS) credits. These credits could be significant, but there are inherent risks and uncertainties involved in this credit market.

4.2. Proposed Process and Standards for Determining Reasonableness of Costs for Recovery in Rates

After considering stakeholder input, we conclude that the costs to construct and operate dairy biomethane pilot projects to connect to the utilities pipeline system (defined as Pipeline Infrastructure) should be recorded by the utility in a memorandum account. The memorandum account will record operations and maintenance costs and capital-related project costs (depreciation, return, and taxes) of the Pipeline Infrastructure associated with the selected Dairy Pilots. Disposition of the balance recorded in this new regulatory account should be reviewed in connection with the utilities' General Rate Case. The Pipeline Infrastructure cost estimates submitted through the solicitation process for the selected projects will be considered per se reasonable. Actual cost documentation provided by the utility shall be itemized, such that the CPUC can understand the exact breakdown of labor, Operations and Maintenance, and capital expenditures for each job activity and each installed piece of equipment.

If utilities bear the cost of the gathering line and the interconnection pipeline, then utilities are allowed to record the costs in the memorandum account and ultimately include the costs of the gathering and interconnection pipeline in their transportation and distribution rates.⁵ Because the cost estimates

⁵ Since dairy biomethane producers bear the costs of digesters and gas conditioning facilities, revenues from the sale of the gas commodity and credits go to the producers

Footnote continued on next page

of the pilot projects will be known through the solicitation process, the cost estimates submitted through the solicitation process for the selected projects will effectively become the authorized revenue requirement. Because a solicitation process for project selection considers costs, there are some mechanisms in place to ensure costs for chosen pilot projects are reasonable. Some factors that drive cost includes (a) location of biomethane plant(s) relative to existing gas lines plus environmental complexities, (b) capacity of existing gas line to receive biomethane amounts, (c) pressure of pipeline at site of potential injection point, (d) sufficient demand from customer downstream of the point of injection to match supply, and (e) timeframe to plan and complete biomethane pipeline injection.

The authorized amount will be reviewed for the utility's prudent administration of the project, but otherwise will be considered per se reasonable. Review of expenditures consistent with the authorized amount is primarily to determine that costs qualify properly as recoverable rather than to question the overall amounts spent. Any expenditure above the authorized amount is subject to a reasonableness review in the General Rate Case. This allows for some flexibility for unforeseen costs such as CEQA permitting process. Any expenditure below the authorized amount will be credited to ratepayers and utilities shareholders, with a 50/50 split, to incentivize utilities to manage the cost in an effective way while minimizing the cost of the pilot project to ratepayers. Comparisons to costs in other states are not determinative of

to offset their costs. The revenue generated from the credits may be negotiated between the seller and the buyer of the biomethane gas via a contract agreement.

reasonableness, but parties can present evidence of such costs in reviews of reasonableness.

4.3. Cap and Trade Credits

Cap and Trade offsets should be apportioned equitably consistent with D.15-10-032, and the guidelines for Natural Gas Vehicles (NGVs) (see below), which initially grants LCFS or Renewable Identification Number (RIN) credits to natural gas producers. To the extent that contractual arrangements with purchasers modify this allocation, and such arrangement modifies the amount of Pipeline Infrastructure costs to be recovered from ratepayers, this adjustment can be recorded in the memorandum account.

4.4. Costs Associated with Natural Gas Vehicle Fueling Infrastructure

The Commission ruled in D.14-12-083 that LCFS and RIN credits are granted to renewable gas producers of fuel purchased for use in NGVs. Critical transportation infrastructure plans envision an increased use of renewable gas as NGV fuel. Utilities are not authorized to incur any incremental costs facilities for natural gas fueling associated with Dairy Pilots or to recover such costs through the process established for the Dairy Pilots. Utilities may seek to include these costs in ratebase to the extent allowed pursuant to established principles and procedures.

5. Selection Criteria

5.1. Agency Partner Input

ARB emphasizes reducing greenhouse gas emissions as the priority criteria for pilot selection, particularly by choosing projects that can aid in its Sustainable Freight Action Plan through use of the Dairy Pilot produced gas by commercial vehicles through the Central Valley, which contains both a vital transportation

corridor and most of the state's dairies. The CEC provided a sample of solicitations⁶ that cover a range of scoring criteria that were based on lessons learned from soliciting biofuel production projects. CDFA provided its Draft Request for Grant Application⁷ that was developed with extensive stakeholder input and reviewed by various state and federal agencies. CEC's solicitations cover all biofuel types (gasoline substitutes, diesel substitutes, and biomethane) while CDFA's solicitation is specific to dairy biogas digesters.

5.2. Highlight of Stakeholder's Input

Overall, the stakeholders suggest several common factors to include as part of the selection criteria. Based on the input received, it appears that each stakeholder has a preference as highlighted here:

1. AECA – commercially viable, proved dairy digester technology and sufficient scale (minimum of 8,000-10,000 cows)
2. ARB – largest methane reductions coupled with the lowest criteria pollutant impacts
3. BAC - range of size and technology type
4. CDFA – develop the pilot project as expeditiously as possible
5. CEC - benefits to the California market
6. Dairy Cares – economies of scale and cost effectiveness of proven technologies

⁶ State of California Energy Commission Grant Funding Opportunity Alternative and Renewable Fuel and Vehicle Technology Program Community-Scale and Commercial-Scale Advanced Biofuels Production Facilities, January 2017

⁷ California Department of Food and Agriculture Draft 2017 Dairy Digester Research and Development Program Request for Grant Applications, February 1, 2017

7. PG&E - projects that increase throughput of biomethane
8. QBSsci - size of individual dairies and/or number of dairies that comprise a cluster
9. RNG Coalition - state of readiness and track record of project developers
10. SoCalGas - variety of solutions that can be scaled

5.3. Proposed Selection Criteria Framework

Stakeholder input has been incorporated into each category of the selection criteria: business model; financial plan; greenhouse gas (GHG) reduction; project readiness; environmental benefits; and disadvantaged community benefits. The CEC's solicitation document was used as the main framework for each category of the selection criteria because its language was broad enough to be applicable to all the factors mentioned by the stakeholders. The proposed selection criteria framework also incorporates language specific to the core values of our partner agencies (e.g., CDFA's text on dairy operation and ARB's text on environmental benefits).

Stakeholders did not propose rankings or scores for each of the factors, so it is unclear how stakeholders rank one factor above the other. Our goal here is to select projects that are financially sustainable in the long-term to ensure these investments provide the expected environmental benefits to ratepayers and the State. A balance needs to be reached on how to make the dairy biomethane industry a viable business (business model, financial plan) while addressing environmental and social concerns (e.g., GHG and disadvantaged community benefits). The direction from Senate Bill 1383 is to achieve a 40 percent reduction of methane from the level in 2013, by 2030. The main impediment to achieving this goal is that dairy biomethane projects historically do not generate enough revenue through the sales of the commodity to attract the upfront investment

needed for the highly capital-intensive infrastructure necessary to build the project and support ongoing operating expenses. Given that a financially sustainable business model is critical for costs that are included in utility transportation rates, we place significant weight on the business side of the scoring rubric (40 points), and distribute the environmental scoring (50 points) between three categories.

The business side includes the business model and the financial plan. Twenty points are allocated for the financial plan to help limit the risk of non-performance or project failure, resulting in stranded ratepayer costs. The environmental criteria include GHG reduction, disadvantaged community benefits, and other environmental benefits. Ten points are allocated for project readiness to ensure that the project is fully operational to help achieve Senate Bill 1383 emission reduction targets.

Scoring Criteria	Maximum Points
Dairy Waste-to-Biomethane Business Model	20
• Dairy Operation • Technology Plan • Marketing Plan • Scalability	
Financial Plan/Soundness	20
GHG Reduction	20
Environmental Benefits	15
Disadvantaged Communities	15
Project Readiness and Implementation	10

The complete Selection Criteria Framework is set forth in Appendix B.

END OF APPENDIX A

APPENDIX B SELECTION CRITERIA AND FRAMEWORK

Applicants must: (1) agree to meet the Eligibility Requirements in order to be considered in the selection process; and (2) submit a proposed pilot project with a discussion of how it meets each of the Selection Criteria.

1. Selection Committee

A Selection Committee comprised of the California Public Utilities Commission (CPUC) as the lead agency, in consultation with the California Air Resources Board (ARB) and California Department of Food and Agriculture (CDFA) will oversee project selection.

Project proposals will be evaluated and verified by the Selection Committee and/or independent auditors. Proposals must include Pipeline Infrastructure cost estimates provided by utilities in their respective territories, and will be verified by the utility. Estimated cost documentation provided by the utility shall be itemized, such that a developer and the CPUC can understand the exact breakdown of labor, Operations and Maintenance, and capital expenditures for each job activity and each installed piece of equipment. Once the proposals are verified and confirmed, the Selection Committee will evaluate and score the Dairy Pilot proposals based on the Selection Criteria. Applicants with the five highest scores will be awarded. In the event of multiple projects with identical scores as the fifth-highest ranked projects, the CPUC retains the discretion to choose one or more of the projects.

2. Eligibility Requirements (Unscored)

The projects must utilize biomethane from California dairy operations and result in permanent, annual, and quantifiable GHG emission reductions. A dairy operation is defined as an entity that operates a dairy herd, which produces milk,

cream, or cheese commercially, and/or whose bulk milk or bulk cream is received or handled by any distributor, manufacturer, or any nonprofit cooperative association of dairy producers.

1. Existing dairy operations and developers who have a written commitment from a dairy operation are eligible for this project.
2. A group of dairy operations can submit one application to develop centralized dairy digesters, known as a “cluster” or “hub and spoke” project. The appropriate location of the centralized digester can be determined by participating dairy operations.

To be considered in the selection process, applicants are required to meet and agree with the following requirements:

1. Demonstrate CEQA and Permits Compliance (see Attachment A)
2. Quantify expected Greenhouse Gas Emissions Reduction using the ARB GHG Reduction Calculator
3. Biomethane produced by the project must be used in California
4. Report parameters and participate in evaluations (see Attachment B)

These requirements allow for compliant operation of facilities under multi-level permitting regimes while ensuring protection of the environment, including reduced methane and criteria pollutant emissions. These terms are non-negotiable.

2.1. CEQA and Permits

If selected, pilot projects must demonstrate substantial compliance with CEQA and all applicable permits within six months of receiving notification of a successful bid for pilot project status, with the opportunity to request additional time for good cause. More specifically, pilot projects must have undergone any required CEQA process to provide information on potential impacts of the

project. Continued compliance with all environmental permit requirements is required for the duration of the project's operation. Detail of CEQA Guidance is located in Attachment A.

2.2. Greenhouse Gas Emissions Reduction Calculations

Applicants are required to use the quantification methodology titled "Greenhouse Gas Quantification Methodology for the California Department of Food and Agriculture Dairy Digester Research and Development Program Fiscal Year 2016-17" and associated DDRDP GHG Emission Reduction Calculator Tool (hereafter referred to as ARB GHG Reduction Calculator) developed by ARB. The quantification methodology and tool (draft for public comment) are available on ARB's website at www.arb.ca.gov/cqi-quantification.

2.3. Data Reporting Parameters

Pilot project developers must agree to report specific data⁸ to the Selection Committee and the CEC. Developers must also agree to allow these agencies to monitor and evaluate these data. Pilot projects have an obligation to report the costs incurred, by both the dairy and utility, as long as the pilots are operational or the costs from the pilots are included in utility rates, but not to exceed 15 years. Finally, developers must agree to participate in reasonable research projects undertaken by these State agencies, sometimes in collaboration with the dairy industry, designed to better understand the emissions profiles of the pilot projects, their cost and revenue potential, the relative effectiveness of various design features, as well as reasonable related data reporting parameters.

⁸ Attachment B details the data subject to reporting, monitoring, and research.

Confidential business information evaluated during reporting, monitoring, and subsequent research is protected from disclosure under existing law. Details of the report parameters and evaluations are located in Attachment B.

3. Selection Criteria (Total 100 points)

Applicants should submit a project narrative that includes a detailed description of the proposed project, its operational goals and objectives. The score will be based on the criterion chart below:

Scoring Criteria	Maximum Points
Dairy Waste-to-Biomethane Business Model • Dairy Operation • Technology Plan • Marketing Plan • Scalability	20
Financial Plan/Soundness	20
GHG Reduction	20
Environmental Benefits	15
Disadvantaged Communities	15
Project Readiness and Implementation	10

Applicants should address each of the scoring criteria by providing sufficient, unambiguous details for the Selection Committee to evaluate the application against each scoring criterion. Applications must respond directly to each criterion, with the headings as titled below. The page limit for the entire application is 30 pages.

3.1. Dairy Waste-to-Biomethane Business Model

3.1.1. Dairy Operation

- a. Provide the details of the history and background of the dairy operation.

- b. Provide herd size and breed, including average number of lactating cows, dry cows, replacement calves, replacement heifers, and any other livestock at your operation.
- c. Explain in detail how current dairy manure management operations compare to the proposed pilot methane management operations.

3.1.2. Technology Plan

- a. Describe the proposed digester and conditioning technology in sufficient detail to explain how it works and its technical feasibility.
- b. Describe how proposed technologies and processes contribute to the facility's / project's ability to compete in the commercial California marketplace. Provide assumptions and sources of relevant data.
- c. Identify and document the role of technology partners, including the legal or contractual relationship and obligations between partners.
- d. If applicable, discuss how the proposed technology is a transformative approach to tackling a critical technology issue or market barrier.

3.1.3. Marketing Plan

- a. Identify credible target markets for biomethane, market drivers, and anticipated market growth.
- b. Identify market barriers to the development of dairy biomethane, including existing or potential competition, and how the project will overcome them.

- c. Describe and document the role of strategic marketing partners, customers, and other partners in ensuring project success, including fuel and co-product off-take agreements.⁹

3.1.4. Scalability

- a. Discuss the replicability of the proposed digester and conditioning technologies and the long-term viability of scaling up capacity.
- b. Describe how feasible it is for the interconnect location to accept biomethane from potential additional digesters.

3.2. Financial Plan/Soundness

1. Demonstrate economic viability of the proposed project by providing the following financial documentation (with assumptions listed) over the duration of the proposed project.
 - a. Balance sheet and cash flow statements for Applicant's firm for the past three (3) years, if available. Documents must be audited and certified by a Certified Public Accountant (CPA). If audited financial statements are not available by submission date, then financial statements certified by a CPA are acceptable.
 - b. Five-year pro forma financial statements for Applicant's firm, including projected balance sheet, income statement, cash flow statement, and debt service schedule for existing and planned long-term debt, if any. List assumptions, including but not limited to, market supply and

⁹ Off-take agreements are not required at the time the proposal is submitted, but existing or conditional agreements will result in a higher score.

- demand conditions of the industry, market fluctuations, and monthly or quarterly fixed costs and variable costs.
- c. Applicant's estimated costs should include the following: Pipeline Infrastructure (biogas collection lines, point of receipt, and pipeline extension), equipment (e.g., valves, meters, and protection devices), digester, conditioning facility, design, engineering, and installation costs.
 - d. Applicant's sources of funding for the project, such as grants, loans and equity contributions, and types, terms, and conditions of match agreements. Project funding should be described by both financial resources and percentage of total equity. Provide contact information for each match source.
2. Identify the financial risks to the proposed project and describe the methods the Applicant will use to effectively manage and mitigate those risks. At a minimum, Applicant should address risks associated with construction, cost overruns, operation, maintenance, technology, regulations, and economic conditions.
 3. Demonstrate the economic viability of the long-term plan following project completion.
 - a. Identify and demonstrate how co-products or other revenue streams contribute to the business plan. Discuss assumptions about expected income from all revenue sources. Discuss how much project viability depends on co-product revenues.
 - b. Discuss estimated values and planned disposition of any potential Low Carbon Fuel Source credits, Renewable Fuel Standard Program credits (RINs), and/or carbon cap-and-trade credits.

- c. List any pending or filed litigation in which Applicant is a party, and explain the extent of Applicant's liability coverage, if any. **Please list only litigation that pertains to or impacts the project's execution. Explain how the pending or filed litigation affects the applicant's ability to complete and/or operate the project.**

3.3. Greenhouse Gas Reduction

Provide the estimated GHG emission reduction resulting from the proposed projects. Download and complete the ARB GHG Emissions Reduction Calculation Tool. Scroll down and select the CDFA Dairy Digester Research and Development Program.

<https://www.arb.ca.gov/cc/capandtrade/auctionproceeds/quantification.htm>.

3.4. Environmental Benefits

A higher score will be given to projects that minimize criteria pollutant and Toxic Air Contaminant (TAC) emissions and maximize net criteria pollutant reductions along freight and transportation corridors.

1. **Mitigate Emissions On-Site.** Explain how the proposed pilot project mitigates to a level of insignificance criteria pollutants and TAC emissions from all aspects related to the project, including emissions resulting from construction, operation of the project, and resultant increases in vehicle miles travelled to and from the project site. Emissions not associated with the operation of the pilot project (e.g., agriculture pumps, normal farm vehicle operation, etc.) do not require mitigation. Mitigation of air quality impacts from the project may rely on air pollutant reductions that occur due to use of renewable fuel produced by the project only for fuel that will be used on the project site, used by the participating dairies, or used in vehicles that transport products from those dairies (along with products

from other dairies, if applicable). Mitigation of air quality impacts from the project may rely on air pollutant reductions that occur due to use of renewable fuel produced by the project only when the fuel relied on for this mitigation is used by vehicles traveling in the San Joaquin Valley.

2. **Maximize Reduction Off-Site.** Explain how the proposed pilot project reduces net criteria pollutant emissions along freight and transportation corridors.
 - a. Provide documents that support vehicle fuel sold to and utilized by freight transport vehicles along the State's major freight and transportation corridors (e.g., Interstate 5, State Route 99).
 - b. Provide documents that verify any partnership with local delivery fleets (e.g. milk hauling, feed delivery) to convert diesel freight vehicles to natural gas vehicles and supply them with renewable compressed natural gas from a pilot injection project. These conversions will reduce NOx and diesel particulate matter of existing fleets.

3.5. Disadvantaged Communities

1. Discuss and quantify the potential impacts (positive or negative) of the proposed pilot project on disadvantaged communities within California (within the top 25 percent of disadvantaged communities as defined by CalEnviroScreen 3.0).¹⁰
2. Describe in detail specific mitigation measures that will be included in the project, including but not limited to, methods to mitigate impacts such as

¹⁰ <http://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30>

toxic air contaminants, hazardous air pollutants, criteria pollutants, groundwater and surface water impacts, truck traffic, and odor.

3. Describe how the project proponent(s) engaged the community. Did community-based non-profit organization(s) involved in potentially impacted communities provide assistance in engagement efforts? Did discussion include potential adverse impacts of proposed projects, including a net increase in criteria pollutants, toxic air contaminants, hazardous air pollutants, groundwater and surface water impacts, and truck traffic, and odor?
4. List the public, community organization and/or government stakeholders involved.
5. Provide details of community meetings, including but not limited to method of notification, attendance, location, date/time, translation services provided, childcare provided, meals provided.
6. Provide support letters from community members and/or leaders demonstrating that outreach was conducted (at least 3).

3.6. Project Readiness and Implementation

A proposed project that is the furthest along in obtaining the aforementioned rights (e.g. signed documentation, or at least a letter of interest) will receive higher scores. This factor represents how quickly construction can begin.

- i. *Overall Readiness/Permitting.* Applications must include information about the permitting required for the project and whether or not the permitting has been completed. If the permitting has not been completed, applications must include a permitting schedule that

- ensures successful project completion within the timeframes specified in this solicitation.
- ii. ***Site Control.*** Applications must describe the proposed project site and document site and equipment control. Site and equipment control includes, but is not limited to: leases, ownership, or access rights. Proposed point of interconnection to a natural gas pipeline must be identified along with the distance between the proposed project and proposed point of interconnection. Applicants must also demonstrate thorough safety, maintenance, and training procedures will be in place.
 - iii. ***California Environmental Quality Act.*** Applications must include information documenting progress towards achieving compliance under the California Environmental Quality Act (CEQA). If CEQA compliance has not been obtained for an application, then the application must include a schedule to complete CEQA activities for the proposed project.
 - iv. ***Community Outreach.*** Applications must include information about planned community outreach, including outreach and discussions with fire marshals and educational efforts to explain the proposed project to the public.
 - v. ***Previous awards.*** If Applicant has received previous grants or awards from CEC, CDFA, and ARB, applicant must describe how the requirements of the agreement(s) have been fulfilled/are being fulfilled. Describe previous grants or awards for the project from any other source.

ATTACHMENT A: CEQA GUIDANCE

1. **Air Quality Protection.** Projects shall demonstrate protection of air quality such that air quality impacts from the project are mitigated to a level of insignificance. The design and construction of digester vessels (i.e., ponds and tanks), low pressure raw biogas pipeline, biogas upgrading and conditioning equipment, biomethane compression equipment, post-cleanup pipeline and interconnection components under this program shall be demonstrated to be protective of air quality. To meet air quality requirements, the following is required:
 - a. Pilot projects must prepare and deploy methane leak detection or a plan covering the interconnection point, post-upgrading pipeline, compressor stations, biogas upgrading system, low-pressure pipeline, and anaerobic digester. Post-upgrading component methane leak monitoring shall be conducted in accordance with the leak¹¹ detection and repair¹² requirements of Section 95669 (Leak Detection and Repair) of the Proposed ARB Oil and Gas Regulation (California Code of Regulations, Title 17, Division 3, Chapter 1,

¹¹ Leak is defined in § 95667 (a)(26) of the Proposed ARB Oil and Gas Regulation as “the unintentional release of emissions at a rate greater than or equal to the leak thresholds specified in this article.”

¹² Leak detection and repair is defined in § 95667 (a)(26) of the Proposed ARB Oil and Gas Regulation as “the inspection of components to detect leaks of total hydrocarbons and the repair of components with leaks above the standards specified in this subarticle and within the timeframes specified in this subarticle.”

Subchapter 10 Climate Change, Article 4)^{13,14} and is the responsibility of the gas corporations. The cost of methane leak detection may be recoverable in rates.

- b. Projects with existing or planned internal combustion engine-based onsite generation technologies operating on dairy biogas must meet Best Available Control Technology (BACT) standards under new source review and shall demonstrate compliance for the life of the project.
- c. Flaring of raw biogas or biomethane meeting pipeline specifications shall only be allowed in case of emergency.
- d. Mitigation of air quality impacts from the project may rely on air pollutant reductions that occur due to use of renewable fuel produced by the project only for fuel that will be used on the project site, used by the participating dairies, or used in vehicles that transport products from those dairies (along with products from other dairies, if applicable). Mitigation of air quality impacts from the project may rely on air pollutant reductions that occur due to use of renewable fuel produced by the project only when the fuel relied on for this mitigation is used by vehicles traveling in the San Joaquin Valley.

¹³ More information on the Proposed ARB Oil and Gas Regulation, expected to be adopted in March 2017, is available at:

<https://www.arb.ca.gov/regact/2016/oilandgas2016/oilandgas2016.htm>

¹⁴ Text of the Proposed Oil and Gas Regulation is available at:

<https://www.arb.ca.gov/regact/2016/oilandgas2016/oilgasappa.pdf>

2. Water Quality. Projects shall demonstrate protection of water. The design and construction of digester vessels (i.e., ponds and tanks) under this program shall be demonstrated to be protective of surface and ground water quality. To meet water quality requirements, one of the following is required:

- a. Double-lined ponds consistent with the Tier 1 specification of the Dairy General Order (R5-2013-0122) of the Central Valley Regional Water Quality Control Board
- b. Above-ground tank
- c. Below-grade concrete lined tank.

ATTACHMENT B: Data Reporting Parameters and Participation in Evaluations

Each selected Dairy Pilot must participate in data reporting and evaluations. Data reporting includes:

A. Pilot Project Information and Description, including (but not limited to):

1. Location
2. Detailed dairy cow population (by dairy for clusters, segregated by age, gender, and lactation status)
3. Discussion of business model
4. Demonstrated dairy/site control for third party developer projects
5. Description of current manure handling and all proposed modifications
6. Description of equipment to be installed, including location of any centralized facilities shared between dairies
7. Proximity to pipeline with injection capacity
8. Proximity to transportation corridors
9. Proximity to disadvantaged communities as defined by ARB by CalEnviroScreen 3.0.
10. Description of related on- and off-dairy heavy-duty vehicle fleets (milk hauling, feed delivery) that could potentially be converted to low-NOx natural gas power.
11. Discussion of fuel and transportation off-taker contracts completed or under development.

- B. Provide all information listed in the “FAAST Grant Application Questions”¹⁵ section of the CDFA’s 2017 Dairy Digester Research and Development Program solicitation.
- C. Costs, including but not limited to:
1. Project Development and Construction, including the cost of design, engineering, installation, and individual component capital costs (e.g. including digesters, gathering lines, biomethane upgrading/conditioning, and pipeline injection point of receipt), including how any project delays impacted costs;
 2. Interconnection Studies;
 3. Component Operation and Maintenance (including consumables, labor, and energy requirements); and
 4. Description (including total amounts) of costs recovered through the utility ratebase.
- D. Costs shall also be reported as follows:
1. Energy production cost-effectiveness (annual diesel gallon equivalents (DGEs) produced divided by annualized project expenditures);
 2. Methane emissions abatement cost effectiveness (annual emissions avoided divided by annualized project expenditures); and
 3. Percent of total project costs recovered from utility ratepayers (defined as Pipeline Infrastructure Costs).

¹⁵ Referenced material currently begins on page 12 of the May 3, 2017 Request for DDRDP Grant Applications <https://www.cdfa.ca.gov/oefi/ddrdp/>.

E. Project developers agree to allow the following to be monitored, evaluated, or otherwise studied:

1. Feasibility
2. Cost-effectiveness
3. Method to track and verify delivery of biomethane to transportation fuel fleets or customers
4. Determinants of technical performance, including the following:
 - i. Emissions (GHG and criteria) and emissions reductions
 - Methane emission reductions must be calculated using either the ARB Livestock Projects Compliance Offset Protocol¹⁶ or the FY 16/17 CDFA Dairy Digester Research and Development Program Draft Quantification Methodology.¹⁷
 - Projects are required to provide GHG calculations in the following formats:
 - Total annual biomethane injection;
 - Total annual GHG emission reduction;
 - GHG reduction per unit of energy-corrected milk (ECM) produced by the dairy operation;

¹⁶ Information on the ARB Livestock Projects Compliance Offset Protocol available on the ARB website at:

<https://www.arb.ca.gov/cc/capandtrade/protocols/livestock/livestock.htm>

¹⁷ The Draft Greenhouse Gas Quantification Methodology for the CDFA DDRDP is available at:

https://www.arb.ca.gov/cc/capandtrade/auctionproceeds/cdfa_draftqm_16-17.pdf

- GHG reduction per dollar CDFA-DDRDP and additional GGRF (if any) grant money invested.
(If applicable)
- ii. Renewable energy potential (amount of biogas and fuel produced)
- iii. Effectiveness of selected technology components
 - Dairy digestion technology, including monitoring and testing of baseline and post-digester emissions
 - Biogas upgrading and conditioning, including monitoring biogas quality achieved pre- and post-cleanup by methods including, but not limited to standard leak-detection and remote sensing.
 - Pipeline and interconnection point of receipt
- iv. Impact on daily operation of dairy
- v. Lessons learned
 - Key ingredients for success
 - Pitfalls to avoid
 - Potential for cost reductions
 - Transferability to other biomethane submarkets (e.g., wastewater treatment plants, organic diversion at landfills, food waste)
- vi. Scalability and replication potential

5. Future research¹⁸ related to understanding and encouraging dairy pipeline injection projects.
- F. Prior to project initiation,¹⁹ project developers must conduct reasonable outreach to neighboring disadvantaged communities identified by CalEnviroScreen 3.0,²⁰ as specified by the Selection Committee, and CEC as appropriate, concerning project benefits, impacts, and measures that will increase benefits and reduce impacts. Input from the communities must be solicited, recorded, and (when feasible) incorporated into development plans. Agency representatives must be present at all outreach events. Summaries of comments received, and proposed responses to each will be prepared and submitted to the agencies for approval.

¹⁸ This requirement allows for appropriate planning and allocation of funding and resources for integrated interagency research plans and projects which may not be finalized before the release and adoption of the Rulemaking. ARB desires to retain the right to conduct reasonable research on pilot project facilities in the event that research plans and projects are not finalized before pilots are selected.

¹⁹ For the purposes of the pilot project selections, ARB defines “prior to project initiation” for environmental justice outreach purposes as meaning before biomethane commences injection into the natural gas pipeline network.

²⁰ Information on CalEnviroScreen 3.0 is available at:
<https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30>

APPENDIX C

Organizations Not on Existing Service Lists

ORGANIZATION	EMAIL
Association of Irrigated Residents	Tom.frantz49@gmail.com
Ca Against Waste	NickLapis@cawrecycles.org
California Bioenergy	nblack@calbioenergy.com
California Cattlemen's Association, Inc.	jenna@calcattlemen.org
California Climate And Agriculture Network	renata@calclimateag.org
California Dairies, Inc.	info@californiadairies.com
California Dairy Campaign	Bertha@californiadairycampaign.com
California Farm Bureau Federation	cfbf@cfbf.com
California Milk Advisory Board	jgiambroni@cmab.net
Central Cal Asthma Collaborative	Kevin.Hamilton@centralcalasthma.org
Central Valley Air Quality Coalition	Dolores@calcleanair.org
City of Reedley	Peter.Rangel@reedley.ca.gov
Community Alliance for Agroecology	janaki@allianceforagroecology.org
CRPE-Center on Race,Poverty,& Environment	lmartinez@crpe-ej.org
CRPE-Center on Race,Poverty,& Environment	bnewell@crpe-ej.org
Dairy Cares	DairyCares@gmail.com
Dairy Farmers Of America, Western Area Council	sstone@dfamilk.com
Dairy Institute Of California	rkaldor@dairyinstitute.org
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Midvalley Disposal	MartinO@midvalleydisposal.com
Milk Producers Council	rob@milkproducers.org
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UC Office Of The President, Facilities Management Services	Kenyon.Potter@ucop.edu
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END of APPENDIX C

APPENDIX D

GLOSSARY

TERM	MEANING
A.	Application
AB	Assembly Bill
AECA	Agricultural Energy Consumers Association
ALJ	Administrative Law Judge
ARB	Air Resources Board
BAC	Bioenergy Association of California
BACT	Best Available Control Technology
CalEPA	California Environmental Protection Agency
CalRecycle	Department of Resources Recycling and Recovery
CDFA	California Department of Food and Agriculture
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CPA	Certified Public Accountant
CPUC	California Public Utilities Commission
D.	Decision
DDRDP	Dairy Digester Research and Development Program
DTSC	Department of Toxic Substances Control
GHG	greenhouse gas
GO	General Order
GRC	General Rate Case
H&S	Health and Safety
IEPR	Integrated Energy Policy Report
LCFS	Low Carbon Fuel Standard
NGV	Natural Gas Vehicle

OEHHA	Office of Environmental Health Hazard Assessment
OIR	Order Instituting Rulemaking
PG&E	Pacific Gas and Electric Company
Pub. Util.	Public Utilities
QBSci	Quantitative Biosciences
R.	Rulemaking
RFS	Renewable Fuel Standard
RIN	Renewable Identification Number
RNG Coalition	Coalition for Renewable Natural Gas
RPS	Renewable Portfolio Standard
SB	Senate Bill
SDG&E	San Diego Gas & Electric Company
SLCP	Short-Lived Climate Pollutant
SoCalGas	Southern California Gas Company
TAC	Toxic Air Contaminant

END of APPENDIX D